Kansas.—Of general occurrence on the 5th and 4th; Fort Scott, 6th; Topeka, 13th; Independence, 18th.

Kentucky.—Bowling Green, 24th, 29th, 30th; Louisville,

Louisiana.-Point Pleasant, 19th, 24th, 25th, 30th, 31st; Port Eads, 13th, 19th, 24th; Shreveport, 19th, 24th, 30th; New

Michigan.—Otisville, 14th; Port Huron, 14th; Lansing, 15th;

Alpena, 25th.

Mississippi.—Vicksburg, 25th, 31st; Starkville, 31st.

Missouri.—Archie, 5th; Protem, 6th, 18th; Springfield, 6th; Saint Louis, 13th, 29th.

Nevada.—Pioche, 23d.

New Jersey.—Sandy Hook, 19th; Manasquan, 20th. New Mexico.—Fort Cummings, 9th; Fort Bayard, 9th; Santa

Fé, 11th, 15th, 24th; Fort Union, 12th.

North Carolina.—Of general occurrence in the state on the 19th, 30th, 31st; and were also reported from Life-saving Station No. 6; on the 15th, 16th, 28th; Brevard, 3d; Hatteras, 6th, 15th, 18th, 20th, 26th; Kittyhawk, 15th; Smithville, 20th.

Ohio.—Of general occurrence on the 14th; and at Bethal,

9th; Sandusky, 15th; Cincinnati, 30th.

Oregon.—Albany, 23d.

Pennsylvania.—Williamsport, 15th.

South Carolina.—Stateburg, 19th, 20th, 30th; Charleston,

Tennessee.—Memphis, 29th, 30th, 31st; Nashville, 29th, 30th, 31st; Chattanooga, 30th, 31st; Murfreesborough, 31st; Kuoxville, 31st.

Texas.—They were of general occurrence along the Gulf coast on 13th and 15th; and in northern Texas on 18th, 23d, 24th; and reported Fort McKavett, 16th; Denison, 18th; Fort Elliott, 18th; Palestine, 18th, 19th, 24th, 30th, 31st; Galveston, 19th, 24th.

Utah.—Nephi, 24th.

Virginia.—Chincoteague, 19th; Norfolk, 30th; Wytheville, territories not included in the districts named above 30th; Cape Henry, 31st.

Washington.—Spokane Falls, 24th. West Virginia.—Helvetia, 30th.

Wyoming.—Cheyenne, 29th.

# OPTICAL PHENOMENA.

SOLAR HALOS.

Solar halos have been observed in the various districts, on the following dates:-

New England .- 1st, 3d, 6th, 8th, 14th, 15th, 17th, 20th, 21st,

24th, 26th, 29th, 30th, 31st.

Middle Atlantic states.—6th, 7th, 8th, 13th, 17th, 21st, 22d,

24th to 27th, 30th 31st.

South Atlantic states.—6th, 19th, 14th, 15th, 17th, 21st, 24th, 25th, 27th, 29th, 30th.

Eastern Gulf.—6th, 10th, 11th, 14th, 16th, 21st, 23d, 27th,

29th, 30th, 31st.

Western Gulf.-3d, 4th, 9th, 11th, 20th, 22d, 23d, 24th, 29th. Ohio valley and Tennessee.—2d, 4th, 5th, 7th, 16th, 17th, 20th, 24th, 25th, 27th, 28th.

Lower lakes.—5th, 6th, 8th, 12th, 15th, 20th, 23d to 27th,

30th, 31st.

Upper lakes.—2d, 3d, 5th, 7th, 9th, 10th, 12th, 13th, 16th, 17th, 20th, 24th, 25th, 26th, 29th, 30th, 31st.

Extreme northwest. -3d, 13th, 18th, 19th, 20th, 29th, 30th,

31st.

Upper Mississippi valley.—4th, 5th. 7th, 8th, 9th, 12th, 15th, 16th, 20th, 21st, 22d, 24th, 26th, 28th, 29th.

Missouri valley .- 1st to 4th, 7th, 9th, 12th, 13th, 15th, 19th,

California. -4th, 6th, 9th to 12th, 24th, 25th, 26th.

Solar halos were also observed in the following states and territories not included in the districts named above:

Arizona.—Prescott, 21st, 25th, 29th. Idaho.—Lewiston, 1st, 7th, 22d, 25th, 31st.

Kansas.—Clay Centre, 19th; Elk Falls, 12th; Yates Centre, 2d, 6th, 7th, 19th, 20th.

Nevada.—Carson City, 22d.

New Mexico. - Santa Fé, 11th.

Oregon.—Roseburg, 10th.

Texas.—Eagle Pass, 30th. Utah.—Salt Lake City, 3d.

Washington.—Colfax, 23d. Lansing, Michigan, 2d: at 4 p. m., a solar halo of 22° radius was observed, with two bright parhelia, one above and the other on the left of the sun. There was an arc of a fainter halo of 45° radius on the left of sun. The clouds were cirrostratus and cirro-cumulus, of bluish gray.

Mr. B. B. Cutter, of Heath, Massachusetts, reports that a remarkable solar halo was observed at that place at 9.30 a.m.,

of the 26th.

## LUNAR HALOS.

Lunar halos have been observed in the various districts on the following dates:

New England.—1st, 14th, 16th, 17th, 19th to 24th.

Middle Atlantic states.—2d, 16th to 26th.

South Atlantic states.—19th, 20th, 24th, 25th.

Eastern Gulf.—13th, 16th, 19th, 23d, 29th.

Western Gulf.—13th to 16th, 20th, 22d, 24th, 25th, 26th. Ohio valley and Tennessee.—13th, 15th, 16th, 17th, 19th, 22d,

24th, 25th. Lower lakes.—12th to 17th, 22d, 24th, 25th, 26th, 29th. Upper lakes.—13th, 14th, 16th, 17th, 19th, 20th, 23d, 24th, 29th.

Extreme northwest.—15th, 16th, 20th, 23d, 24th.

Upper Mississippi valley.—2d, 13th, 14th, 16th to 19th, 21st. Missouri valley.—7th, 8th, 12th, 13th, 15th, 16th, 18th, 19th, 20th, 23d.

Northern slope.—13th, 14th, 16th, 19th, 21st, 22d. Southern slope.—1st, 14th, 21st, 22d.

Southern plateau.—2d, 11th, 13th, 14th, 15th, 21st, 26th to 30th.

Middle plateau.—1st, 19th, 21st, 23d, 24th.

Lunar halos were also observed in the following states and

California.—Los Angeles, 12th; Visalia, 3d, 19th, 22d, 24th.

Florida.—Cedar Keys, 16th, 18th.

Kansas.—Salina, 18th, 19th; Yates Centre, 19th, 20th, 23d.

Nevada.—Carson City, 21st, 22d; Pioche. 31st.

Oregon.—Portland, 18th.
Texas.—Eagle Pass, 1st.
Utah.—Nephi, 21st; Salt Lake City, 21st, 22d.

Washington.—Bainbridge Island, 13th, 18th, 19th, 21st.

Alexandria, Dakota, 11th, 19th.

Pretty Prairie, Kansas, 1st.

Indianola, Texas, 8th, 9th, 16th, 17th, 20th, 21st, 24th, 26th.

#### MISCELLANEOUS PHENOMENA.

# SUN SPOTS.

The following record of sun spots for the month of March, 1883, has been forwarded by Mr. D. P. Todd, Director of the Lawrence Observatory, Amherst, Massachusetts:-

,	DATE— Mar., 1883.	No. of new				Reappear'd by solar rotation.		Total No. visible.		REMARKS.
		Gr'ps	Spots	Gr'ps	Spots	Gr'ps	Spots	Gr'ps	Spots	
,	I, 4p. m 2, 9a. m		0	0	0	0	0	2 2	6 5	
,	3, 9a, m 9, 4 p. m 15, 11 a. m	0 4	0 10	0	0	0	0	1 4 4	10 12	
,	16, 11 a. m 17, 11 a. m 18, 12 m	0	5 5 3	0 0 I	0 2 2	0	3	4 4 3	17 20‡ 20‡	
	19, 3 p. m 20, 10 a. m	0	0	0	5	0	0	3 2	201 151	
ı	21, 9a.m 22, 9a.m 23, 11 a.m	I	5 7 5	0 1	2 0	0 0	0	2 2 2	201 251 301	
	24, 10 a. m 25, 12 m 26, 10 a. m	0	0 0 5	0	0	0 0 1	0 0 5	2 2 3	30 25 30	
,	28, 7a.m		5	0	0	0	ŏ	3	25‡	

‡Approximated. Faculæ were seen at the time of every observation.

Mr. H. D. Gowey, at North Lewisburg, Ohio, reports that sun spots were observed on all clear days during the month. 1st; largest on 30th; and smallest on the 3d.

Mr. Howard Shriver, of Wytheville, Virginia, reports sun spots as follows:—1st, one spot; 17th, two spots of medium size; 18th, three large spots and numerous small ones; 20th, two large spots and numerous small ones; 24th, one large spot and numerous small ones; 30th, one large spot and two small or medium ones.

## SUNSETS.

The characteristics of the sky, as indicative of fair or foul weather for the succeeding twenty-four hours, have been observed at all Signal-Service stations. Reports from one hundred and eighty-three stations show 5,630 observations to have been made, of which fifteen were reported doubtful; of the remainder, 5,615, there were 4,783, or 85.1 per cent., followed by the expected weather.

#### METEORS.

West Washington, District of Columbia, 1st.-A bright meteor was observed at an altitude of 30°, in the northwestern

sky, passing in a southwesterly direction.

Woodstock, Vermont, 1st.—A large and brilliant meteor was reported to have been observed at Hartford, five miles east of the place, at 4.30 a.m. It resembled a ball of fire, falling rapidly, and disappeared when a short distance above the horizon.

Hector, New York, 1st.—At 8 p. m., a bright meteor was observed in the northwestern sky, at an altitude of about 40°; it

moved downward a short distance and disappeared.

Petersburg, Virginia, 4th.—A very brilliant meteor was observed during the early morning. It resembled a large ball of fire, and during its flight illuminated the city so that a newspaper might have been read by its light. Its course was northwestward; an explosion was heard shortly afterwards.

Springfield, Missouri, 11th.—A brilliant meteor was observed at 7.12 p. m., moving in a southwesterly direction at an eleva-

tion of 10°, and exploded before disappearing.

Indianapolis, Indiana, 12th.—A very large meteor was observed at 7.30 p. m., passing southwestward from a point about 25° above the horizon in the northern sky. A feeble noise was distinctly audible during its passage. After disappearing, a cloud-like tail remained visible for several seconds.

Otisville, Michigan, 15th.—At 8.05 p. m., a brilliant meteor was observed to start from a point about 20° east of the zenith; it moved southwestward and disappeared when at about 30°

above the horizon.

Corning, Missouri, 16th.—At 8.35 p. m., a very large meteor was observed, apparently of about three times the size of Jupiter.

Meteors of less brilliancy were reported by the following

stations:-

Yuma, Arizona, 8th, 9th.

Visalia, California, 14th, 18th.

Lansing, Michigan, 15th.

Woodstock, Maryland, 2d, 4th, 8th, 10th.

Crete, Nebraska, 3d.

Fremont, Nebraska, 12th.

Variety Mills, Virginia, 4th, 8th.

Wytheville, Virginia, 3d.

Pioche, Nevada, 6th.

## EARTHQUAKES.

Fallstown, Maryland, 11th.—At 6.57 p. m. a rumbling sound of a second's duration, attended by a trembling of the earth, disturbed the residents of this (Hartford) county and also in the adjacent parts of Baltimore county. The disturbance seems to have been noticed only by those in-doors. The shock appeared to come from the south, and was sufficiently severe to stop clocks and to rattle windows, crockery, etc. A second shock was reported to have occurred between midnight and 1 a. m. of the 12th.

Waterloo, Quebec, 11th.—Between 10 and 11 a. m. two distinet shocks of earthquake were felt, the wave passing from They were most numerous on the 13th; least numerous on the least to west. These shocks were also reported to have been felt at Saint John's and Cowansville, Quebec.

San Francisco, California, 30th-Light shocks of earthquake were felt in this city and vicinity at 7.48, 7.52, and 8.15 a.m.; the first being the heaviest. At points farther south the shocks were more numerous and severe. At Watsonville, Santa Cruz county, nine shocks were felt breaking crockery, plastering, etc. At Hollister, San Benito county, plate-glass windows were broken and the walls of brick-buildings cracked.

#### SAND-STORMS.

Yuma, Arizona, 22d, 29th. Fort Thomas, Arizona, 2d, 11th. Table Rock, Nebraska, 18th. Salinas, Kansas, 18th, 20th, 22d.

### POLAR BANDS.

Cape Mendocino, California, 1st. Sacramento, California, 29th. Alexandria, Dakota, 1st.

Riley, Illinois, 5th.

Yates Centre, Kansas, 3d, 19th. Gardiner, Maine, 9th, 12th, 14th. Lansing, Michigan, 3d.

Thornville, Michigan, 20th.

Protem, Missouri, 8th, 9th, 11th, 12th, 18th, 19th, 23d.

Clear Creek, Nebraska, 16th.

Bordentown, New Jersey, 15th, 20th, 21st, 22d.

Freehold, New Jersey, 9th, 17th, 22d.

Vineland, New Jersey, 8th, 9th, 16th.

Menand Station (near Albany), New York, 12th.

Ore Knob, North Carolina, 7th. Catawissa, Pennsylvania, 5th. Memphis, Tennessee, 23d. Nashville, Tennessee, 4th, 15th, 16th. Palestine, Texas, 22d.

Marion, Virginia, 17th.

Wytheville, Virginia, 9th.

# ZODIACAL LIGHT.

Arizona.—Prescott, 1st, 5th to 10th, 25th, 26th, 27th, 31st. Connecticut.—New Haven, 1st, 2d, 3d, 5th, 9th.

Florida.—Punta Rassa, 6th.

Illinois.—2d, 3d, 7th, 8th.

Iowa.—Cresco, 1st, 3d, 8th, 10th, 28th; Monticello, 1st, 3d, 5th.

Kansas.—Elk Falls, 12th; Lawrence, 7th, 8th; Salina, 2d; Yates Centre, 1st, 11th.

Maine.—Cornish, 5th, 8th, 9th, 30th; Orono, 8th.

Massachusetts.—Cambridge, 1st, 2d, 4th, 5th, 7th, 8th, 9th, 25th, 28th, 29th, 30th; Fall river, 22d, 24th, 25th; Somerset, 1st, 2d, 5th, 7th to 10th, 25th, 28th; Williamstown, 9th.

Minnesota.—Northfield, 2d, 3d, 6th, 10th.

Nebraska.—Clear Creek, 5th to 10th, 14th, 15th.

New Jersey.—Moorestown, 8th.

Oregon.—Albany, 5th, 6th.

Pennsylvania.—Dyberry, 5th; Fallsington, 7th; State College, 1st, 2d, 4th.

Rhode Island.—Point Judith, 25th, 28th.

Tennessee.—Chattanooga, 8th; Nashville, 2d, 3d, 8th, 9th, 27th, 28th, 29th.

Texas.—Fort McKavett, 9th; Palestine, 20th, 21st, 26th.

Virginia.—Variety Mills, 1st to 4th, 7th, 8th, 10th, 27th; Wytheville, 1st, 3d, 4th, 7th, 8th.

Wisconsin.—Franklin, 4th, 6th to 9th.

#### PRAIRIE AND FOREST FIRES.

Arkansas City, Arkansas, 18th.—On a sheep farm, fifteen miles from this place, about 1,400 sheep were killed by prairie fires.

Allentown, Pennsylvania, 29th.—On this date a fire is raging

on Blue mountains, near the Lehigh gap, destroying much valuable timber.

Less extensive fires were reported, as follows:—

Alexandria, Dakota, 12th, 17th, 24th.

Fort Meade, Dakota, 13th, 14th, 17th.

Fort Yates, Dakota, 8th. Yankton, Dakota, 7th, 8th, 10th, 12th to 15th, 19th, 24th, 25th.

Humboldt, Iowa, 17th, 24th, 29th, 30th, 31st.

Creswell, Kansas, 6th, 10th, 11th, 18th, 19th, 22d.

Fort Riley, Kansas, 19th, 20th.

Olay Centre, Kansas, 1st.

Independence, Kansas, 1st, 2d, 3d to 23d, 26th, 27th, 30th. Yates Centre, Kansas, 9th to 12th.

Crete, Nebraska, 8th, 10th, 13th.

North Platte, Nebraska, 24th.

Omaha, Nebraska, 17th.
Portland, Oregon, 21st.
Chattanooga, Tennessee, 1st, 4th, 5th.

Coleman City, Texas, 2d, 6th, 7th, 11th.

Indianola, Texas, 3d.

Wytheville, Virginia, mountain fires, 1st.

#### DROUGHT.

Cape Mendocino, California, 13th.—Along the coast, north and south of this place, the prevalent fogs have prevented the grass from drying up, but further inland the fields are scorched and rain is greatly needed. 18th.—Great alarm is felt among farmers concerning the probable failure of crops, owing to the prolonged drought. Notwithstanding the dews and heavy fogs its effects are felt in this vicinity.

Visalia, California, 31st.—The recent rains have proved of great benefit to agricultural interests. Vegetation has made rapid progress during the past few days, and the prospects are

favorable for a good crop.

Bangor, Maine, 31st.—The mills in this locality are shut down on account of low water.

## MIGRATION OF BIRDS.

Geese flying northward.—Point Judith, Rhode Island, 13th. 14th, 15th, 17th, 18th, 20th; Portland, Maine, 31st; Augusta, Georgia, 1st, 5th; Palestine, Texas, 2d, 4th, 5th, 11th, 17th; Denison, Texas, 11th, 20th; Logansport, Indiana, 8th, 16th, 17th; Oswego, New York, 26th, 27th; Toledo, Ohio, 15th; Buffalo, New York, 30th; Champaign, Illinois, 20th, 23d, 26th, 30th; Keokuk, Iowa, 4th; Omaha, Nebraska, 2d, 5th; Yuma, Arizona, 22d, 23d; Lewiston, Idaho, 28th; Spangle, Washington Territory, 6th, 9th, 11th; Portland, Oregon, 2d; Bethel, Connecticut, 19th; Morriston, Dakota, 22d; Alexandria, Dakota, 4th, 13th; Forsyth, Georgia, 19th; Elmira, Illinois, 1st; Riley, Illinois, 13th; Swanwick, Illinois, 4th; Edgington, Illinois, 1st, 2d, 9th, 12th, 18th, 21st; Monticello, Iowa, 17th; Des Moines, Iowa, 25th; Creswell, Kansas, 13th, 17th; Holton, Kansas, 5th; Independence, Kansas, 3d, 13th, 24th; Yates Centre, Kansas, 23d; Pretty Prairie, Kansas, 1st, 6th, 13th; Osawatomie, Kansas, 14th; Somerset, Massachusetts, 28th; Clear Creek, Nebraska, 1st, 5th, 22d; Crete, Nebraska, 1st; Flushing, New York, 18th; Jacksonburg, Ohio, 17th; Canal Dover, Ohio, 19th, 21st, 26th, Grampian Hills, Pennsylvania, 14th; Variety Mills, Virginia, 1st, 3d; Cedar Rapids, Iowa, 16th. Flying southward.—Augusta, Georgia, 3d; Toledo, Ohio, 5th; Cleveland, Ohio, 2d; Des Moines, Iowa, 6th; Riley, Illinois, 29th; Edgington, Illinois, 14th; Humboldt, Iowa, 18th; Creswell, Kansas, 8th, 13th; Clay Centre, Kansas, 12th; Wytheville, Virginia, 1st. Flying castward.—Umatilla, Oregon, 29th; Edgington, Illinois, 21st.

Ducks flying northward.—Point Judith, Rhode Island, 20th; Logansport, Indiana, 8th; Toledo, Ohio, 27th; Huron, Dakota, 15th; Alexandria, Dakota, 13th; Edgington, Illinois, 2d, 9th, 12th, 18th; Monticello, Iowa, 17th; Humboldt, Iowa, 13th;

Jacksonburg, Ohio, 30th. Flying southward.—Hatteras, North Carolina, 26th; Edgington, Illinois, 24th; Crete, Nebraska, appearing, 30th; Guttenburg, Iowa, appearing, 14th.

Cranes flying northward.—Visalia, California, 26th; Humboldt, Iowa, 24th; Clear Creek, Nebraska, Brants flying northward, 3d.

### NOTES AND EXTRACTS.

The following summary is taken from the "March Report of the Tennessee Weather Service," under direction of Mr. A. J. McWhirter, Commissioner of Agriculture, Statistics and Mines.

Station.	County.	Name of observer,	Mean temperature.	Maximum temperature.	Minimum temperature	Rainfall,
Flat Creek	Bedford,	Wm, Hart	45.2	71	23	4.42
Maryville	Blount	W. H. Henry				4.41
Grief	Bradley	J. T. Cowden				4.53
Caryville	Campbell	Fletcher Smith				5.50
Huntingdon	Carroll	J. S. Ramsey, M. D	45	71	30	3.01
McKenzie	Carroll	John Brown	46	75	12	2.80
Kingston Springs	Cheatham,	W. J. Inman				3.22
Beech Grove	Coffee	B. F. Cheatham	47.2	72	24	4.49
Grassy Cove	Cumberland	Nettie M. Stratton	41.3	74	17	2.06
Gadsden	Crockett	W. T. Moore				1.40
Smithville	De Kalb	E. C. Bluhm	47	70	20	2.70
White Bluff	Dickson	T. C. Reynolds				1.40
Milan	Gibson	M. D. L. Jordan	45	73	18	4.22
Bolivar	Hardeman	E. P. McNeill	48	72	20	5.63
Savannah	Hardin	H. R. Hinkle	42	74	22	3.80
Waverly	Humphreys	D. V. Owen	44	67	18	2.04
Knoxville	Knox	Prof. J. W. Glen	*******			3.48
Howell	Lincoln	O. <b>R.</b> Hatcher				3.90
Hardison's Mills	Maury	Calvin Hardison	48	72	27	2.75
Chuckaluck	McMinn	Jacob Zeigler				6.00
McNairy	McNairy	J. H. Blakely	49.2	76	24	3.45
Sailors' Rest	Montgomery	John Minor				3.25
Benton	Polk	James Hood	45	79	19	4.00
Florence Station	Rutherford'.	Charles F. Vanderford	40	74	24	3.36
Grand View	Rhea	Hattie R. Stratton,	51	75	29	0.26
Woodstock	Shelby	S. Hammontree	47	74	22	3.77
Alexandria	De Kalb	Irenus Beckwith	40	65	30	4.60
Covington	Tipton	T. W. Roane	46	70	26	6.01
Manchester	Coffee	Wiley Hickerson	44	69	22	5.00

The following meteorological summary has been forwarded by Mr. S. R. Thompson, Director of the "Nebraska Weather Service."

# BULLETIN FOR MARCH, 1883.

The month was cold, with rainfall and atmospheric humidity less than

Rainfall.-The average by sections was as follows: Southeast, 0.48 southwest, 0.27; northeast, 0.80; northwest, 0.55. Average for entire state

Relative Humidity.—Omaha, max., 86.1; min., 44.0; mean, 64.1.

North Platte, mean, 64.8.

De Soto, max., 29.32; min., 28.2; mean, 28.79.

College Farm, mean, 69.00.

Temperature.—The mean temperature of the air was 35.38. The average of all noon observations was 43.73.

The following were some of the maximum and minimum temperatures:
Omaha, max., 71.0°; min., 3.0°. De Soto, max., 69.0°; min., 21.0°. College Farm, max., 71.0°, min., 6.0°. North Platte, max., 71.3°, min., 12.0°.
Wind.—Miles travelled, Omaha, 6,465; North Platte, 6,980. Prevailing direction, Omaha, north; North Platte, northwest; College Farm, north.
Greatest velocity at Omaha, was 22 miles, north and northwest; at North

Miscellaneous.—Larks were seen at Beaver Creek on the 1st, at Sutton on the 6th, at Superior on the 11th, at Minden on the 12th, and at Geneva on the 19th. Blue birds were seen at Crete on the 2d. Robbins are reported on the 1st at Nebraska City, the 7th at Crete, and 12th at Beaver Creek. Wild geese flying south were observed at Crete on the 12th, and at Sutton There was a dust storm at Crete on the 18th. During the on the 13th. middle and latter part of the month, there were several light snowfalls all over the state. The spring is very late, and thus far has proved very unpropitious to the farming interests. Dr. Clark, of Sutton, writes that the spring is more backward than it has been for twelve years.

#### ERRATUM.

On page 48, of the February REVIEW, under the heading "Atmospheric electricity interfering with telegraphic communication, &c.," in the report of Captain Vogelgesang, the Des Moines, Iowa, 25th; Yates Centre, Kansas, 21st, 24th; aberration of the compass should be 2½ points, instead of 22½ Fort Scott, Kansas, 1st; Clear Creek, Nebraska, 5th, 22d; points as published.